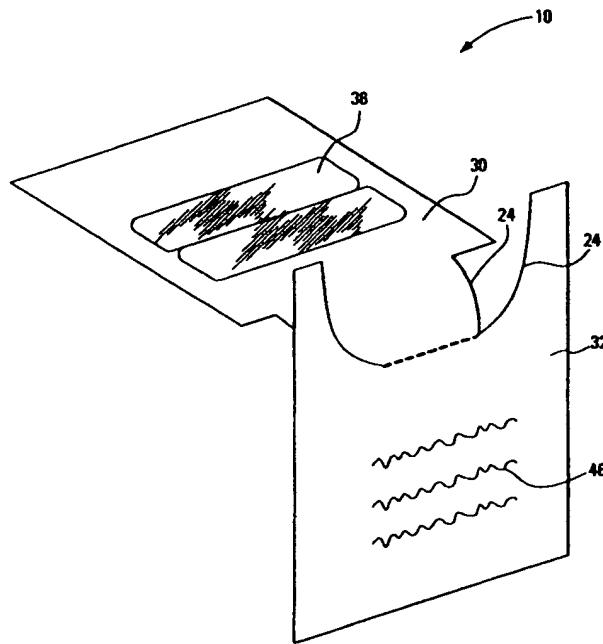


(21)(A1) 2,281,200
(22) 1999/08/26
(43) 2000/11/07

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(51) Int.Cl. 6 G09F 3/10
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(54) CORE TAG



(57) The present invention provides a core tag for identifying rolls of material wound on a hollow core. The core tag has a first portion and a second portion. In use, the first portion is folded with respect to the second portion and is inserted into the hollow core. The first portion is adhered to an inner surface of the hollow core using an adhesive surface located on the first portion, which adhesive surface is exposed when a peelable tab is removed therefrom. The second portion is adapted to receive identifying indicia.



ABSTRACT

The present invention provides a core tag for identifying rolls of material wound on a hollow core. The core tag has a first portion and a second portion. In use, the first portion is folded with respect to the second portion and is inserted into the hollow core. The first portion is adhered to an inner surface of the hollow core using an adhesive surface located on the first portion, which adhesive surface is exposed when a peelable tab is removed therefrom. The second portion is adapted to receive identifying indicia.

CORE TAG**FIELD OF THE INVENTION**

The invention relates to core tags for identification of product rolls, and in particular to core tags inserted into hollow cores of such product rolls, having a portion extending outside the roll for identification thereof.

BACKGROUND OF THE INVENTION

Many thin, flexible materials such as paper, carpeting and cloth are manufactured, transported and stored in rolls. 10 Typically, the material is wound around a hollow paper fibre or plastic tubular core to form a product roll. In storage, such product rolls are typically placed horizontally and stacked atop one another with the ends of the rolls generally aligned.

For inventory control purposes, it is desirable to identify each roll. Although an adhesive label may be placed on the side of the roll, such a label would not be visible if the rolls were stacked atop one another. Furthermore, the adhesive may damage the roll material. Thus, it is desirable to have 20 identification which may be located at the end of the roll. Although an adhesive label may be placed on the end of the roll, such an adhesive label may leave a residue on the material, or may interfere with unwinding of the material.

One solution is taught by U.S. Patent 1,738,378, issued December 3, 1929 to Little. Little discloses an end label for tubular cloth rolls consisting of a round identification plate mounted flush to another smaller rectangular plate having flaps. The flaps are folded toward each other and are inserted into the centre of a core around

which the cloth is wound. The plate identifies the roll while the flaps hold the plate in place. While this device offers a means of identification which may be located at the end of a roll, it is expensive to produce, transferring indicia to the identification plate is difficult, and the end label may fall out of the core during moving, in a windy factory environment, or if the flaps are not fully inserted into the core.

Another solution is taught by U.S. Patent 5,010,667, issued April 30, 1991 to Hassinger. This patent discloses a tag

10 used for identifying rolled drawings. The tag consists of a generally rectangular sheet having a transverse score line near an end. The portion of the sheet defined by the score line, which bears indicia, is bent downward while the remainder of the sheet is curled and inserted between rolled layers of the rolled drawing. The portion of the sheet bearing indicia hangs down from the remainder of the sheet, and the indicia identify the drawing. Although this device may be manufactured inexpensively, it is still prone to inadvertent separation from the drawing in windy conditions, during moving, or if the device
20 is not fully inserted between the rolled layers of the drawing. Furthermore, this device is not suitable for use with rolls having tightly wound layers since insertion between layers would be very difficult. Additionally, if the material wound on the roll is delicate, it may be damaged during insertion of the device.

Thus, there is a need for an end-mounted core tag which may be used to identify rolls of material, which is inexpensive to manufacture, readily accepts the application of identifying indicia thereon, may be put in place without

damaging the material wound on the roll, and which reduces the likelihood of inadvertent separation from the roll.

SUMMARY OF THE INVENTION

It is an object of the invention to obviate or mitigate one or more of the above identified disadvantages and shortcomings of current roll identification tags.

In a broad aspect, the present invention provides a core tag for identifying a product roll, the core tag having a flexible sheet including a first portion with an adhesive surface in an inactive state, and a second portion having a surface for receiving identification indicia, the second portion attached to, and foldable relative to the first portion. Upon activation of the adhesive surface, the first portion may be inserted into a hollow core end of the product roll and adhered to an inner surface thereof using the activated adhesive surface, and the second portion may be folded to hang down from the first portion at the hollow core end of the product roll.

Other aspects of the present invention include the following. The flexible sheet may be constructed of coextensive first and second layers, the layers adhered to one another by means of an adhesive provided on a rear surface of the first layer, and an adhesive release provided on a front surface of the second layer, the inactive adhesive surface of the first portion of the core tag being a portion of the adhesive-bearing rear surface of the first layer covered by a peelable tab, wherein the adhesive surface is activated by separating the peelable tab from the adhesive surface. The peelable tab may be a portion of the second layer overlying the adhesive surface, the peelable tab being defined by a die cut provided in the

second layer. Additionally, at an interface line between the first and second portions, which has a central segment and two side segments, each of the two side segments of the interface line may be provided with separation perforations, wherein the separation perforations may be broken to reduce the width of the interface line between the first and second portions to facilitate curling of the first portion and insertion and adherence thereof within a cylindrical central bore.

Advantageously, the present invention provides an end-mounted core tag which is inexpensive to manufacture, readily accepts the application of identifying indicia thereon, may be put in place without damaging the material wound on the roll, and which reduces the likelihood of inadvertent separation from the roll.

BRIEF DESCRIPTION OF THE DRAWINGS

Preferred embodiments of the invention will now be described with reference to the attached drawings in which:

Figure 1 is a front view of the core tag according to a preferred embodiment of the present invention;

Figure 2 is a rear view of the core tag of Figure 1;

Figure 3 is a front and top perspective view of the core tag of Figure 1 with adhesive orphan labels removed, two lines of separation perforations broken, and the core tag folded along folding perforations;

Figure 4 is a rear and bottom perspective view of the core tag of Figure 3 showing a peelable tab peeled away exposing an adhesive surface; and

Figure 5 is a front perspective view of the core tag of Figure 3 inserted into a hollow core end of a roll.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The core tag 10 is a flexible elongated card constructed of two coextensive layers, a first layer 12 as shown in Figure 1 in front of, and adhered to a second layer 14 as shown in Figure 2. The core tag 10 also has a first portion 30, a second portion 32, and side edges 20.

The dimensions of the core tag 10 are determined by the size of the core within which the core tag is to be

- 10 inserted, and the amount of space required for identifying indicia. In the preferred embodiment, a 10" x 4.5" core tag 10 is provided for use in a core having an inner diameter of approximately 3 inches.

The first layer 12 of the core tag 10 is provided with a pressure sensitive adhesive coating (not shown) applied on its rear surface. The adhesive to be used will depend on the material used for the core of the roll, whether it be paper fibre, plastic, metal or wood for example. An example of a suitable pressure sensitive adhesive for use with a paper fibre

- 20 core is light tack permittive adhesive. Between the first portion 30 and the second portion 32, two lines of separation perforations 24 extending inwardly from the side edges 20 are provided. Inward ends 26 of the two lines of separation perforations 24 are joined by a line of folding perforations 28. The perforation lines 24 and 28 separate the core tag 10 into the first portion 30 and the second portion 32. The first portion 30 of the first layer 12 is provided with die cuts 34 defining two transversely elongated adhesive labels 36. These labels 36 may be detached from the core tag 10 and applied to

other documents, for example, for inventory control purposes. Such labels are commonly referred to as orphan labels.

The second layer 14 of the core tag 10 is provided with an adhesive release coating (not shown) on its front surface, an example of a suitable adhesive release coating being silicone. The two lines of separation perforations 24 on the first layer 12 also extend through the second layer 14. No perforations are provided on the second layer 14 corresponding with the folding perforations 28 on the first layer 12. Die cuts 40 are provided on the first portion 16 of the second layer 14 to define a peelable tab 42, $1\frac{1}{4}'' \times 1\frac{1}{4}''$ for example, adjacent the inward ends 26 of the two lines of separation perforations 24. The die cuts 40 are provided on only three sides of the peelable tab 42. The uncut bottom edge 44 of the peelable tab 42 substantially overlies the folding perforations 28 on the first layer 12. The peelable tab 42 therefore covers an adhesive surface 48 of the rear surface of the first layer, as shown in Figure 4, rendering the adhesive surface 48 inactive. Upon peeling away of the peelable tab 42 from the adhesive surface 48, the adhesive surface is exposed and therefore activated.

The first layer 12 is constructed of a material on which indicia may readily be applied on its front surface. Both the first layer 12 and the second layer 14 may be constructed of a material thin enough to permit curling of the first portion 30 of the core tag 10, while being strong enough to withstand handling by the user, and to avoid tearing of the second layer 14 along the folding perforations 28 when the core tag is placed in a core of a roll. In the preferred embodiment, the first layer 12 is 40 pound direct thermal paper, while the second

layer 14 is 78 pound paper. Of course, other suitable materials may be used for each of the first layer 12 and the second layer 14, plastic or other weights of paper for example.

In use, the front surface of the first sheet 12 is printed with indicia 46 on the adhesive orphan labels 36, and on the second portion 32. Such indicia 46 provide identifying information about the roll, and may for example include information specifying the material wound on the roll, the length of the material, the manufacturing batch from which the
10 material originates, etc.

The orphan labels 36 are then detached from the second layer 14, such removal being facilitated by the die cuts 34 in the first layer 12 defining the orphan labels 36, and the release coating on the front surface of the second layer. These adhesive orphan labels 36 may be applied to other documents for example, and may be used for inventory control purposes.

The two lines of separation perforations 24 are then broken to reduce the width of a connecting line between the first portion 30 and the second portion 32 to facilitate the
20 eventual curling of the first portion relative to the second portion. The core tag 10 is then folded along the folding perforations 28. Because no corresponding perforations are provided on the second layer 14 beneath these folding perforations 28, the second portion 32 and the first portion 30 of the core tag 10 remain attached along the fold. When the core tag 10 is folded, the first portion 30 is folded rearwardly relative to the second portion 30. The resulting folded core tag 10 is shown in figure 3.

As shown in Figure 4, the peelable tab 42 defined in
30 the second layer 14 is then peeled away from the adhesive

surface 48 to expose, and therefore activate the adhesive surface. This is facilitated by the die cuts 40 defining the peelable tab 42, and the adhesive release coating provided on the front surface of the second layer 14. Because die cuts 40 are only provided on three sides of the peelable tab 42, when the peelable tab is peeled away, it remains attached to the core tag along the bottom edge 44, and the peelable tab need not necessarily be removed and discarded.

The side edges 20 of the first portion 30 of the core tag 10 are then curled upward, as shown in Figure 5, and the first portion is inserted into a core 50 of a roll 52 of wound material. When the first portion 30 of the core tag 10 is properly positioned within the core 50, the activated adhesive surface 48 is pressed against an inner surface 54 of the core. The core tag 10 therefore identifies the roll 52 of wound material through the indicia 46 provided on the second portion 32 of the core tag which hangs below the core 50 of the roll. The core tag 10 is secured in place and prevented from being inadvertently separated from the roll by adhesion of the activated adhesive surface 48 on the inner surface 54 of the core 50.

As will be appreciated, due to its simple construction, the preferred embodiment core tag 10 is inexpensive to manufacture. Further, because the core tag 10 is flat, application of indicia using a typewriter or printer is facilitated. Such application of indicia may be further facilitated by providing a continuous sheet (not shown) of core tags 10 attached to one another along side edges, or top and bottom edges, with perforations separating individual core tags.

The preferred embodiment core tag 10 of the present invention may be constructed as follows.

First, a first continuous sheet of 4.5" wide 40 pound direct thermal paper is coated on a rear surface with light tack permittive adhesive. A second continuous sheet of 4.5" wide 78 pound paper is coated on its front surface with a silicone adhesive release coating. The first continuous sheet is then placed atop the second continuous sheet such that the rear surface of the first continuous sheet removably adheres to the
10 front surface of the second continuous sheet.

The adhered first and second continuous sheets are then placed in contact with a first engraved die which applies perforations to form the two lines of separation perforations 24 on both continuous sheets, and the folding perforations 28 and the die cuts 34 defining the orphan labels 36, on the first continuous sheet. The adhered first and second continuous sheets are then placed in contact with a second engraved die which applies the die cut 40 defining the peelable tab 42 on the second continuous sheet. A perforation cylinder then applies
20 cross-perforations across both sheets at 10" intervals to allow separation of individual core tags from the continuous sheet.

Because the core tags 10 of the present invention are then in a continuous sheet, the sheet may be fed through a printer for application of indicia. The individual core tags separated from the continuous sheet are ready for use.

Although the preferred embodiment of the core tag of the present invention has been described in great detail, it is to be understood that many of the features described may be altered without departing from the spirit of the invention. For
30 example, different dimensions may be used for the core tags.

Additionally, it is not necessary that the core tags include adhesive orphan labels 36. The two lines of separation perforations 24 provided on the first and second layers 12 and 14, and the folding perforations 28 provided on the first layer need not be in the configuration described and illustrated, so long as the perforations readily permit the core tag to be folded, while still holding the first portion 30 and the second portion 32 together. For example, a straight line of perforations may be provided on the first layer 12, and an overlying line of perforations may be provided on the second layer 14 except along a central segment.

It is further to be understood that the core tag of the present invention may be used to identify any object having a hollow core, pipes for example.

Additionally, although the adhesive surface has been described as a portion of the rear surface of the first layer bearing a pressure-sensitive adhesive, it is to be understood that other adhesive surfaces may be used, a dry adhesive which is activated through moistening, for example.

Further modifications and variations of the present invention are possible in light of the above teachings. It is therefore to be understood that within the scope of the appended claims, the invention may be practiced otherwise than as specifically described herein.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A core tag for identifying a product roll, the core tag comprising a flexible sheet having:
 - a first portion having an adhesive surface in an inactive state; and
 - a second portion having a surface for receiving identification indicia, said second portion attached to, and foldable relative to said first portion; whereby in use, upon activation of the adhesive surface, the first portion may be inserted into a hollow core end of the product roll and adhered to an inner surface thereof using the activated adhesive surface, and said second portion may be folded to hang down from the first portion at the hollow core end of the product roll.
2. The core tag of claim 1 wherein the flexible sheet of the core tag is constructed of coextensive first and second layers, said layers adhered to one another by means of an adhesive provided on a rear surface of said first layer, and an adhesive release provided on a front surface of said second layer, the inactive adhesive surface of the first portion of the core tag comprising a portion of the adhesive-bearing rear surface of the first layer covered by a peelable tab, wherein the adhesive surface is activated by separating the peelable tab from the adhesive surface.
3. The core tag of claim 2 wherein the peelable tab is a portion of the second layer overlying the adhesive

surface, the peelable tab being defined by a die cut provided in the second layer.

4. The core tag of claim 3 wherein the die cut defines only a portion of a perimeter of the peelable tab, such that when the peelable tab is separated from the adhesive surface, the peelable tab remains attached to the remainder of the second layer.

5. The core tag of any one of claims 2 to 4 wherein an interface line between the first and second portions has a central segment and two side segments, each of the two side segments of the interface line being provided with separation perforations, wherein the separation perforations may be broken to reduce the width of the interface line between the first and second portions to facilitate curling of the first portion and insertion and adherence thereof within a cylindrical central bore.

6. The core tag of claim 5 wherein folding perforations are provided on the first layer along the central segment of the interface line between the first and second portions.

7. The core tag of either one of claims 5 and 6 wherein the adhesive surface is located adjacent the central segment of the interface line between the first and second portions.

8. The core tag of any one of claims 2 to 7 wherein at least one orphan label is provided on the core tag.
9. The core tag of claim 8 wherein the at least one orphan label is defined by die cuts provided on the first layer.
- 10 The core tag of any one of claims 8 and 9 wherein the at least one orphan label is located on the first portion.
11. The core tag of any one of claims 2 to 10 wherein the first layer is made of paper.
12. The core tag of any one of claims 2 to 11 wherein the second layer is made of paper.

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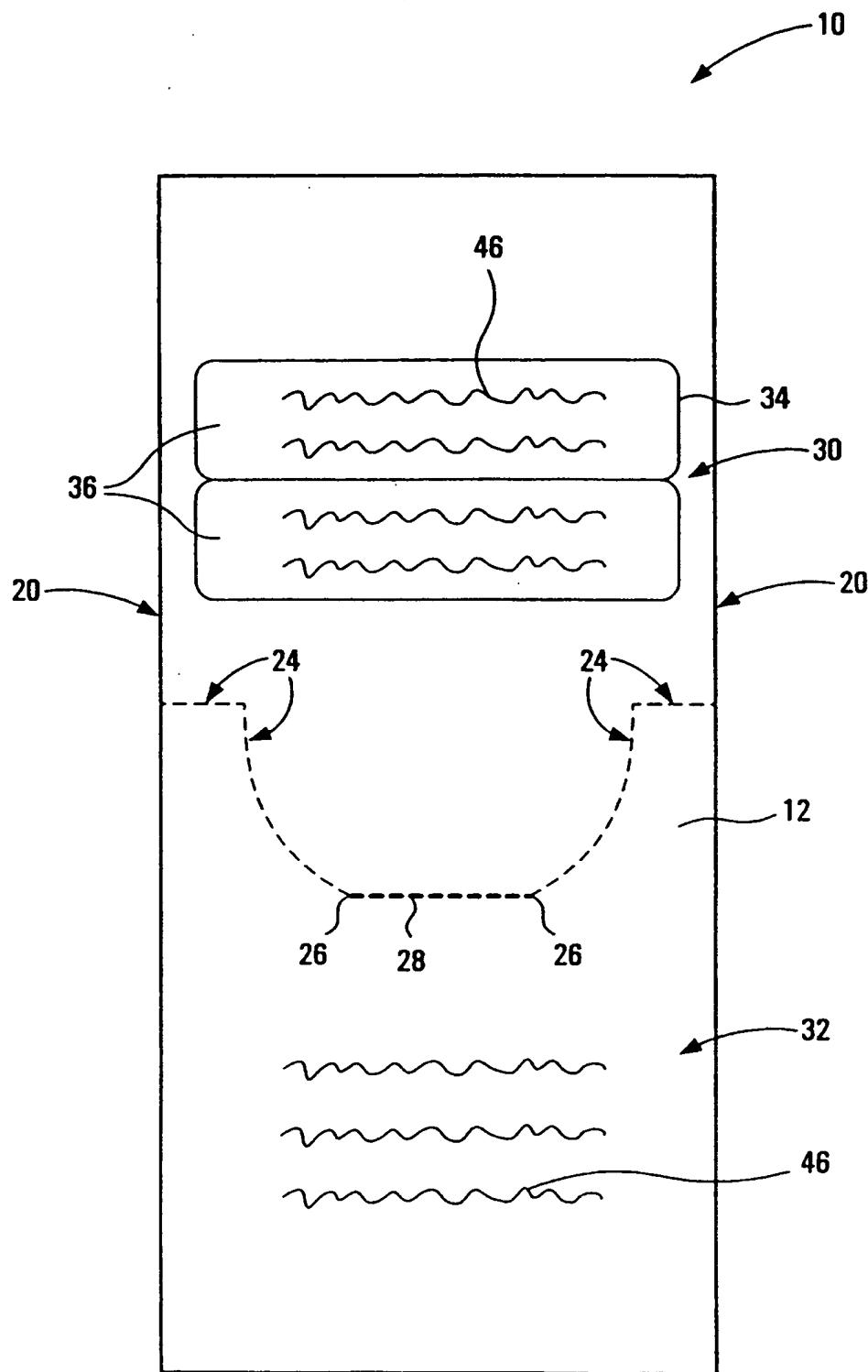


FIG. 1

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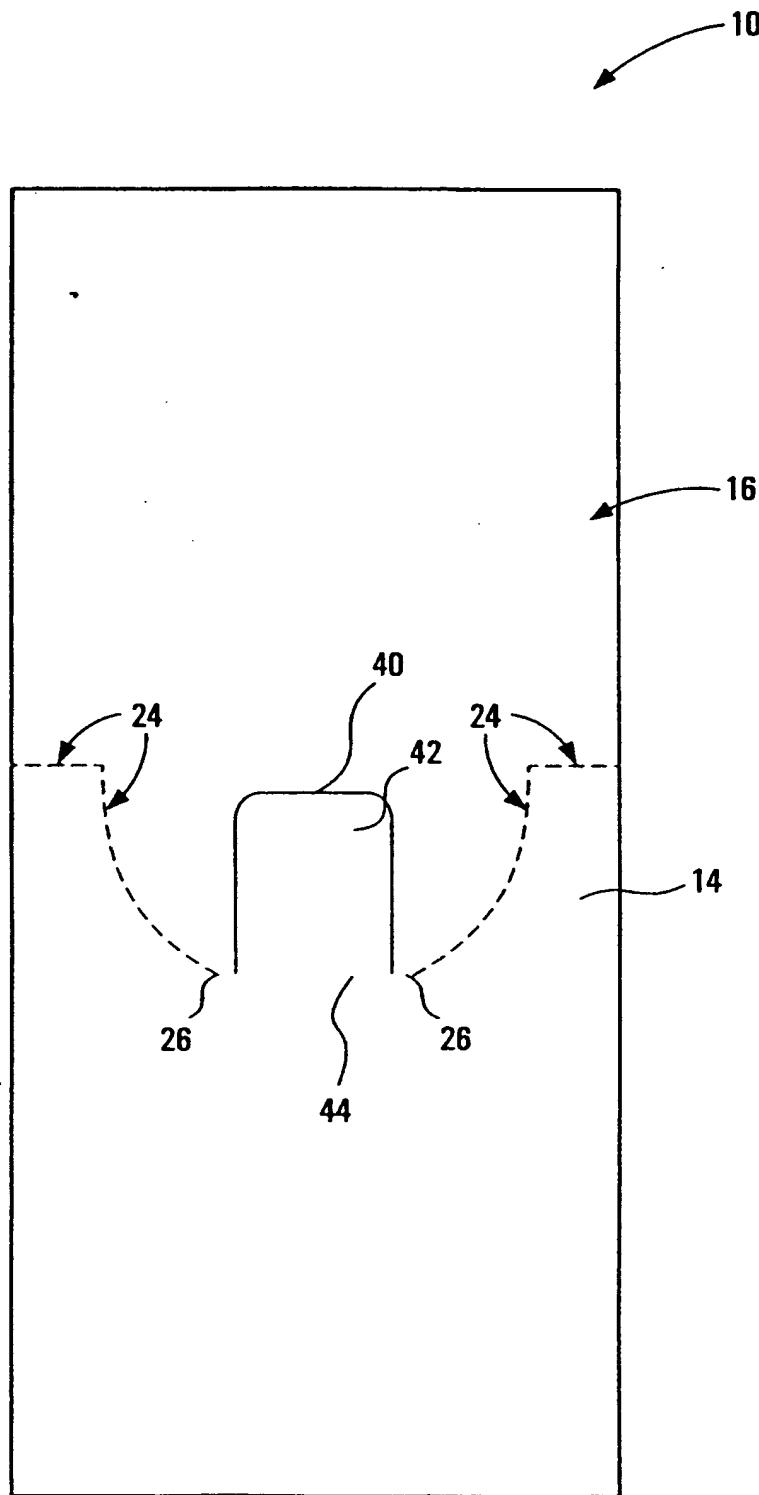


FIG. 2

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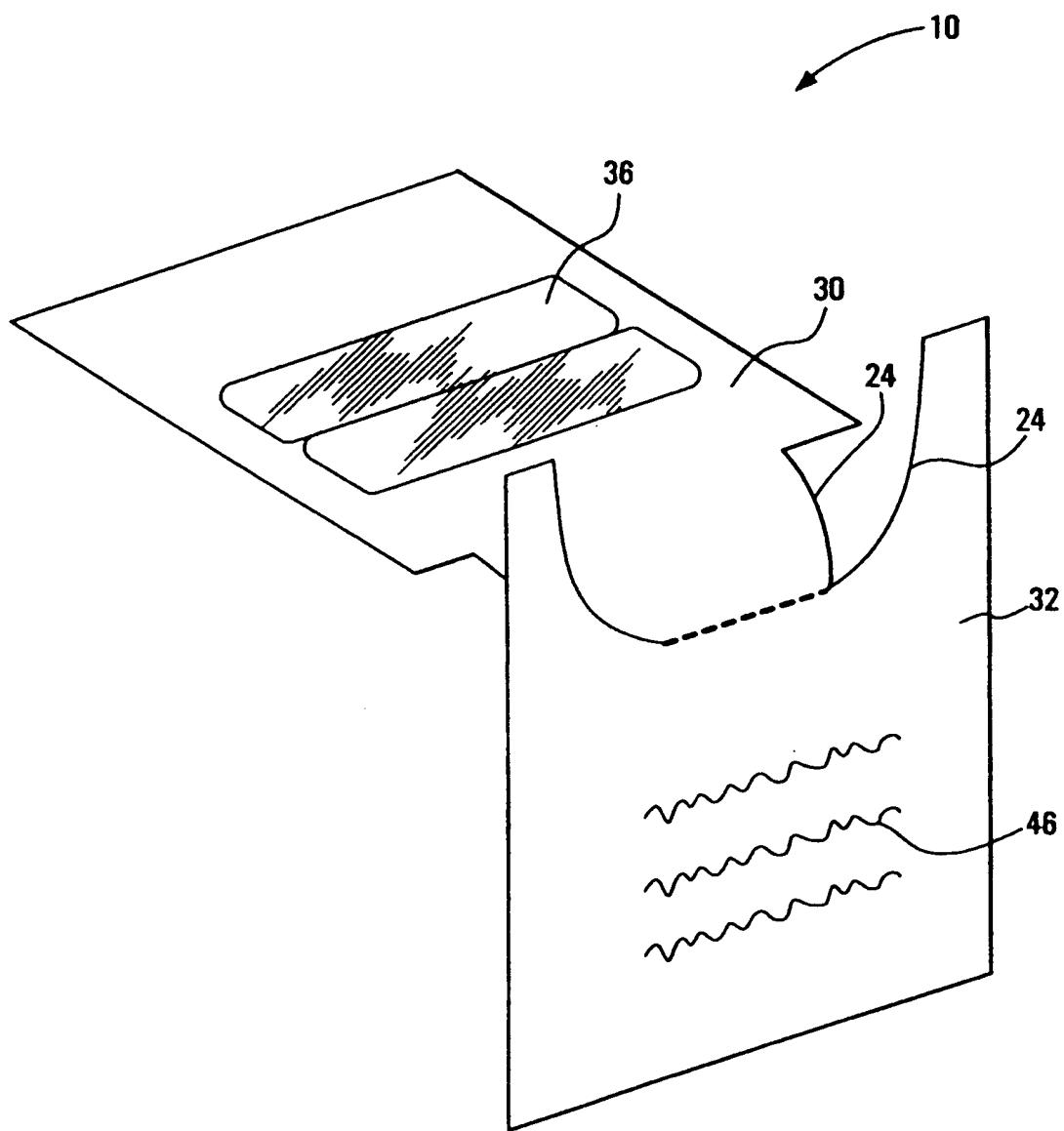


FIG. 3

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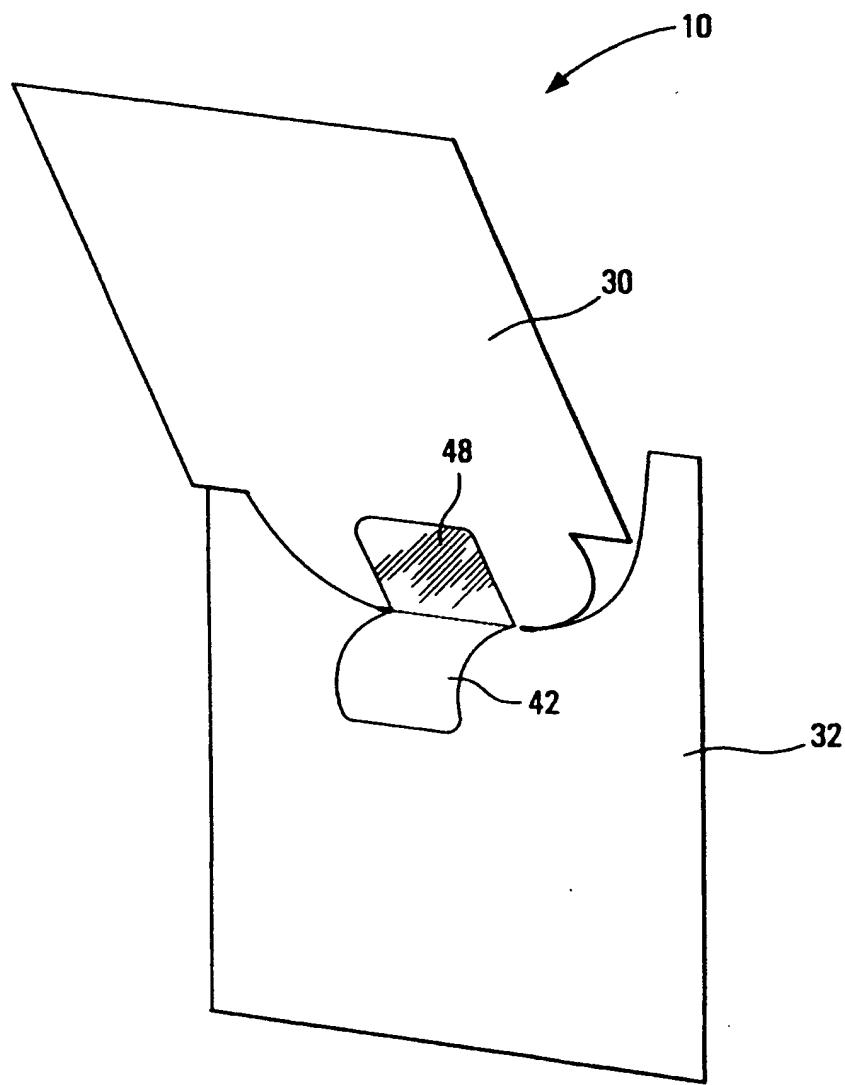


FIG. 4

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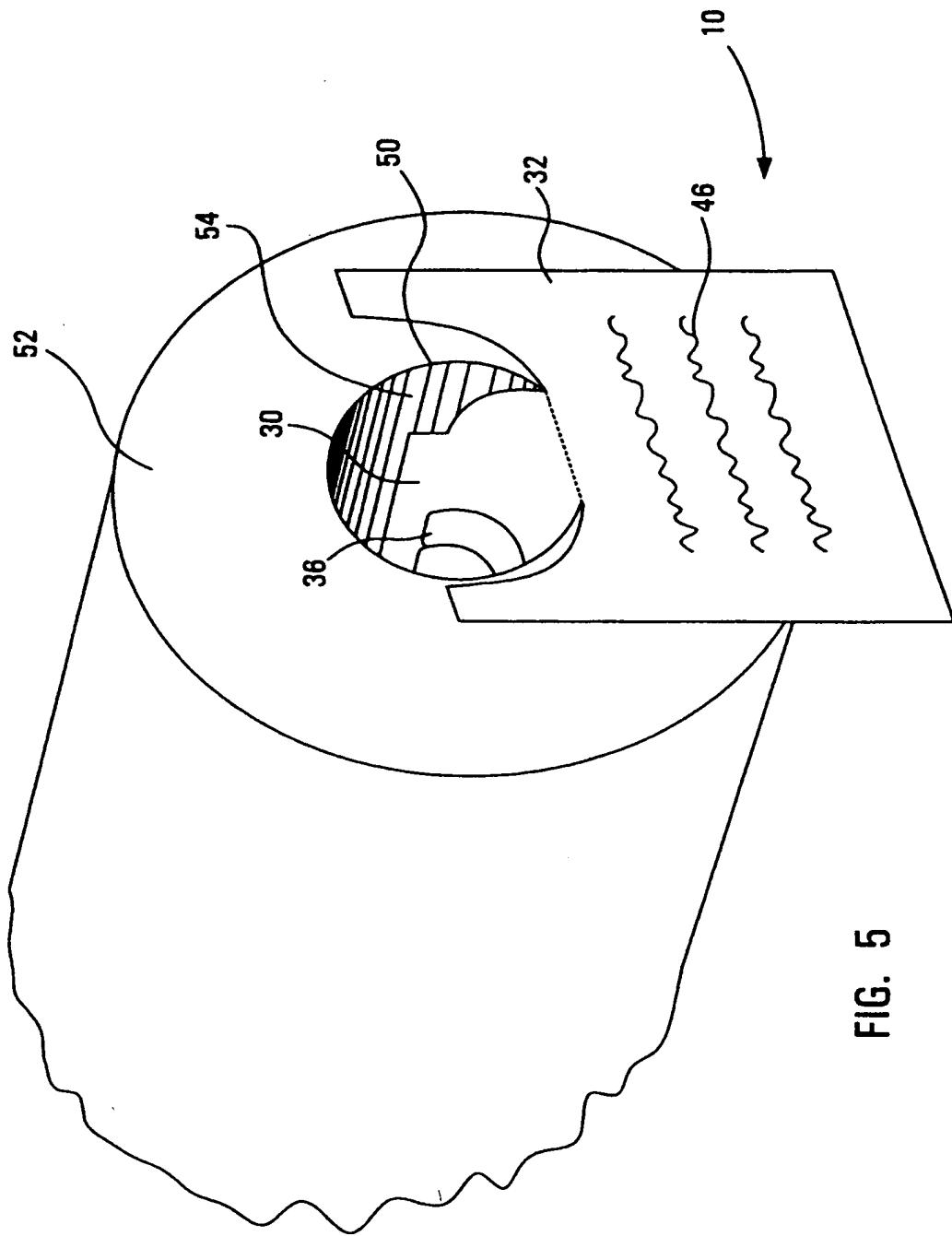
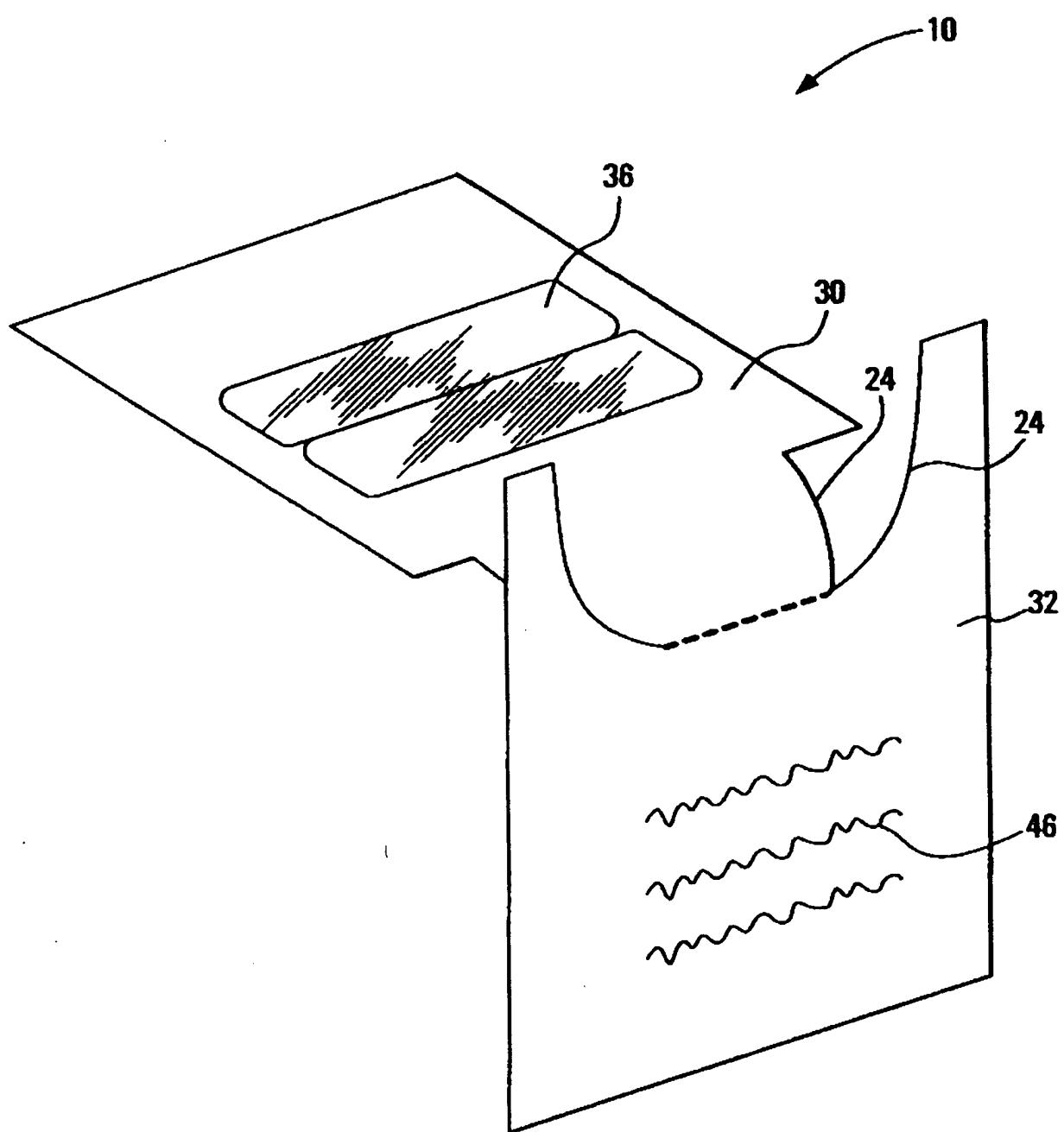


FIG. 5



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